**IT Applications Unit 3, AOS 1, Online Communities**

Complete the following, from Chapter 2, Problem-solving Methodology, pgs, 60-80

**Problem Solving Methodology**

* Analyse
* Design
* Development
* Evaluate

**Case Study**

Indigenous Language Trust, (ILT)

Using the case study, ILT complete the following:

**Evaluation Criteria and prototype websites**

This stage involves the following steps:

**Identifying evaluation criteria, p 76**

1. **What is the purpose of evaluating the solution?**

The purpose of evaluating is to judge whether a solution has fulfilled the requirement that were identified in the analysis stage.

1. **In identifying evaluation criteria, efficiency and effectiveness can be used as a scaffold. Give an example of a measure in terms of efficiency and effectiveness**

* allow people to access information in a timely manner
* to allow members of the organisation to communicate more easily with members of the community
* cut down on the costs associated with sharing information

**Developing a prototype website, p 76**

1. **What is a prototype website?**

A prototype is a model or simulation of a website that demonstrates its functionality, partial navigation options and interface. Features are not fully functional, but the user should be able to get the idea of how it will operate when fully developed.

**Using validation**

1. **How does validation occur?**

Validation involves checking data and accuracy and completeness. This can be done manually or electronically. Manual validation is when the data is checked by a person to ensure that it is correct and/or reasonable via means such as proofreading a document and checking the correct spelling, grammar and punctuation. Electronic validation involves using software such as spell check to ensure accuracy.

**Manipulation to build a solution**

1. **List tasks involved with manipulation**

* image compression
* reformatting
* navigation structures
* inserting links
* design formats

1. **What are cascading style sheets and meta tags?**

Cascading style sheets ensure that every page has common formats and conventions. Meta tags need to be applied to every image being used, so that the accessibility and meaning of the website in not compromised by a slow Internet connection.

**Testing the prototype solution, p 78**

List the testing undertaken for:

1. **List some tests for functionality**
   * the navigation design works, buttons and scripts
   * the CSS is accessed be every page in the website, changing text colour on one page should change the colour of text on every page
   * both relative and absolute links within the webpage work properly
   * alt tags appear
   * the webpage can be viewed in different screen sizes
2. **What is the difference between an absolute and a relative link?**

Absolute links use the exact web address to access the page. Absolute links may be used when navigating to an external site.

Relative links access a webpage in relation to where the link is placed. If the website is moved to another site, this relative link does not need to be changed.

1. **List some tests for appearance**

* acceptable formats and conventions have been applied throughout the website
* the appearance of the prototype website meets the gender, special and cultural needs of the user
* change in screen size does not affect the website
* the organisation is easily identifiable on every page
* the navigation bar can be easily identified on every page

1. **Draw an example of an effective testing table**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Description of the test** | **Test data to be used** | **Expected results from the test** | **Actual results of the test** | **Are there errors to correct?** |
| **TEST 1: Testing the navigation bar works** | Click on each link and determine that it works as expected | Each link in the navigation bar will work, linking the correct pages | Links worked as expected | No |
| **TEST 2: Testing that the closed section of the website is protected by a password** | TEST DATA 1: correct password  Name: john  Password: boat  TEST DATA 2: incorrect password  Name: john  Password: 1234 | When correct name and password are entered, the user will be able to access the closed section of the website. When the incorrect details are entered the user will not be allowed access | As expected, the correct password was accepted and the incorrect password was rejected | No |